

HW ✓

$$2) -4, 2, 5$$

$$\frac{P+}{(6, 20)}$$

$$y = a(x+4)(x-2)(x-5)$$

$$20 = a(6+4)(6-2)(6-5)$$

$$20 = a(10)(4)(1)$$

$$\frac{20}{40} = \frac{40a}{40}$$

$$a = \frac{1}{2}$$

$$y = \frac{1}{2}(x+4)(x-2)(x-5)$$

$$4) -5, 2$$

$$\frac{P+}{(3, -24)}$$

$$y = a(x+5)(x-2)$$

$$-24 = a(3+5)(3-2)$$

$$= a(8)(1)$$

$$\frac{-24}{8} = \frac{8a}{8}$$

$$-3 = a$$

$$y = -3(x+5)(x-2)$$

$$y = -3(x^2 + 3x - 10)$$

$$y = -3x^2 - 9x + 30$$

$$6) -6, -3, 5$$

$$\frac{P+}{(3, 36)}$$

$$y = a(x+6)(x+3)(x-5)$$

$$36 = a(3+6)(3+3)(3-5)$$

$$36 = a(9)(6)(-2)$$

$$\frac{36}{-108} = \frac{a(-108)}{-108}$$

$$a = -\frac{1}{3}$$

$$y = -\frac{1}{3}(x+6)(x+3)(x-5)$$